

I) TECHNICAL CHARACTERISTICS



The M3 Monocular HMD is a specialized product designed for Augmented Reality applications. It is a monocular optic-see-through device that projects an image or a streaming video through the near-the-eye micro-display. The frameless design allows nearly unblocked vision.

a) Display Features

The M3 Monocular HMD offers a micro-screen with the following characteristics:

- 800 x 600 resolution, equals 1.4M pixels and full color.
- Display is Liquid Crystal (LCD), one of the best quality of image. The image has an excellent sharpness, brightness, and contrast which allows a comfortable reading visibility without getting your eyes tired.
- Brightness and contrast are adjusted by computer, through a software, provided for the device.

b) Attachment and Mechanical Adjustment

- Head Band



c) Connectivity and GPU Support

Any computer, laptop or other video source with digital DVI output is suitable

... to HMD



DVI socket
(to graphics card or
extender cable)

USB

- Power supply 5V/0.5A
- Audio signals
- Display adjustments
- Firmware updates

d) Audio

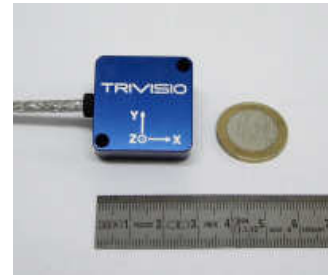
- Microphone is integrated
- Earphone jack (3.5 mm) for external earphones
- Audio signals by USB

II) Additional Features and Options

a) Inertial Motion Sensor

Upon request we can integrate inertial motion sensors:

- Wireless Colibri
- Colibri (with USB cable)



b) Cable Length

The HMD comes with a basic cable length of 2.2 meters, but can be extended upon request to 5m.

c) VGA Interface

There will be a variant with analog VGA video interface, final development stage Dec 2010.

d) Camera

An integrated camera USB 2.0 will be available in Q1/2011.

III) Overview

Technical Specifications	Microdisplay	SVGA AMLCD 800x600 color (equals 1,440,000 pixels)
	Display Color	24 bit
	Frame Rate	60fps
	See-through ratio:	50%
	Field of View	29° diagonal (4:3, 23° (H), 17° (V))
	Distortion	0.8% (H), 1.3% (V), 2.1% corner
	Eye Relief	25mm (edge of beamsplitter)
	Eye Motion Box	6mm (H) x 6mm (V)
	Video Interface	DVI-D
	Audio	Microphone integrated, 3.5mm socket for headset
	Cable Length	2.2m (optional 5m)
	Power Consumption	Display 2.5W (5V, taken from USB port)
	Operating Temperature	0°C to +40°C
	Weight	140 g (without headband)
Dimensions (W/H/D):	50mm x 110mm x 40mm	

Subject to technical modifications